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ABSTRACT OF THE DISCLOSURE

The frequency bandwidth of a signal is reduced, while retaining the desired signal information, by selectively introducing a controlled distortion to an IQ baseband signal. Selective generation of either a non-distorted complex-valued baseband signal or a distorted complex-valued baseband signal may be based upon values of information bits in the sequence of information bits to be represented by the radio frequency signal. The technique is applicable to both IQ-modulators and polar modulators, thereby allowing cost-efficient and current-efficient polar modulators and/or cost-efficient power amplifiers to be utilized.